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Docket No.: OGW-0333
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Akira Kuramori et al.

Application No.: 10/509,229

Confirmation No.: 1787

Filed: September 24, 2004

Art Unit: 3617

For: TIRE/WHEEL ASSEMBLY

Examiner: J. R. Bellinger

REQUEST FOR PANEL REVIEW

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is in further response to the Office Action mailed on March 29, 2006.
Reexamination in light of the following remarks is respectfully requested.

Rejection under 35 U.S.C. §112

Paragraph 3 of the Office Action includes a rejection of claims 1-9 under 35 U.S.C. §112, second paragraph.

This rejection is traversed at least for the following reasons.

While not conceding the propriety of this rejection, and in order to advance the prosecution of the above-identified application, the claims have been amended.

Furthermore, "a patentee can be his own lexicographer provided the patentee's definition, to the extent it differs from the conventional definition, is clearly set forth in the specification." *Beachcombers v. Wildewood Creative Prods., Inc.*, 31 USPQ2d 1653, 1656 (Fed. Cir. 1994). "For claim construction purposes, the description may act as a sort of

dictionary, which explains the invention and may define terms used in the claims.” *General Electric Co. v. Nintendo Co.*, 50 USPQ2d 1910, 1914 (Fed. Cir. 1999).

The Office Action contends that it is unclear how the annular shell can include a support surface that is “formed radially outwardly of the annular shell” (Final Office Action at page 2).

In response, the following description is provided for illustrative purposes and is not intended to limit the scope of the invention.

Paragraph [0021] of the specification as originally filed provides that the annular shell 4 is formed so that it has an outer diameter smaller than the inner diameter of an inner surface 2a of the pneumatic tire 2 in order to maintain a constant distance therebetween, and includes an annular support surface 6 having two convexly curved surface portions 6a, each being radially outwardly convex in shape when viewed in the cross section orthogonal to the tire circumferential direction.

Thus, a definition of include a support surface that is “*formed radially outwardly of the annular shell*” is readily ascertained.

The Office Action further contends that it is unclear how the annular shell can include “two leg portions formed radially inwardly of the annular shell” (Final Office Action at page 2).

Further in response, the following description is also provided for illustrative purposes and is not intended to limit the scope of the invention.

Paragraph [0022] of the specification as originally filed provides that the annular shell 4 has two side walls radially inward which are formed as leg portions 7, and each elastic ring 5 is attached to the radially inner side of each leg portion.

Thus, a definition of the annular shell that can include “*two leg portions formed radially inwardly of the annular shell*” is readily ascertained.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Rejection under 35 U.S.C. §103

Paragraph 5 of the Office Action includes a rejection of claims 1-6 under 35 U.S.C. §103 as allegedly being unpatentable over Japanese Application Publication No. 10-297226 to Glinz et al. (Glinz) in view of U.S. Patent No. 5,685,927 to Hammond et al. (Hammond).

This rejection is traversed at least for the following reasons.

Claim 1 - Claim 1 includes a pneumatic tire fitted to the rim of the wheel, the pneumatic tire having a tread surface and a hollow space, the tread surface having a circumferential groove extending in a circumferential direction of the tire.

Claim 4 - Claim 4 includes a pneumatic tire fitted to the rim of the wheel, the pneumatic tire having a tread surface and a hollow space, the tread surface having a circumferential groove extending in a circumferential direction of the tire.

Glinz - Glinz arguably teaches the presence of an annular body 2 having curved parts 5, 6 (Glinz at Figure 3, and Abstract). However, the Office Action admits that Glinz fails to disclose, teach, or suggest one or more circumferential grooves extending in a circumferential direction of the tire (Office Action at page 5).

Moreover, Glinz does not show anything more than a tire/wheel assembly incorporating a run-flat support member comprising an annular shell and elastic rings in the cavity of a pneumatic tire fitted on a rim, and it contains no disclosure nor suggestion concerning the applicant's claimed relative arrangement of the circumferential groove on the tread surface and the apical line of the support surface of the run-flat support member or the two edges of the support surface of the run-flat insert member.

Accordingly, Glinz cannot be expected to bring about the advantageous result according to the applicant's claimed invention that the occurrence can be suppressed of the circumferential groove undergoing a damage or destruction caused by the run-flat support

member or the run-flat insert member supporting the tire, during run-flat operation, whereby an improvement can be attained in or relating to run-flat durability.

Thus, not all features are found within Glinz.

Hammond - The Office Action provides Hammond for the features that are admittedly absent from within Glinz.

Hammond arguably teaches tire which is enabled to be run flat by a rubber reinforcing member having a crescent shape in section and arranged in each sidewall of the tire, and not such a run-flat tire as having a run-flat support member or a run-flat insert member arranged in its cavity. In addition, Hammond arguably teaches the presence of a channel 90 (Hammond at Figures 2, 4, 4A, 4B, 5A).

While Hammond arguably teaches a circumferential groove formed on the tread surface, it contains neither disclosure nor suggestion of the applicant's claimed relative arrangement of the circumferential groove and the run-flat support member or the run-flat insert member.

Thus, Hammond cannot be expected to bring about the advantageous result according to the applicant's claimed invention that the occurrence can be suppressed of the circumferential groove undergoing a damage or destruction caused by the run-flat support member or the run-flat insert member supporting the tire, during run-flat operation, whereby an improvement can be attained in or relating to run-flat durability.

Moreover, Hammond fails to disclose, teach, or suggest a run-flat support member disposed in the hollow space of the pneumatic tire as in claim 1.

Hammond also fails to disclose, teach, or suggest a run-flat insert member disposed in the hollow space of the pneumatic tire as in claim 4.

Without the benefit of hindsight, the Office Action fails to show why the skilled artisan would have been motivated to modify Glinz using the groove 90 of Hammond in the manner that an *apical line or apical face* of the convexly curved surface portion is offset in a direction of

a center axis of rotation of the wheel so as not to be located in a position corresponding to the *circumferential groove 90* of Hammond when viewed from a radial direction of the wheel.

Without the benefit of hindsight, the Office Action additionally fails to show why the skilled artisan would have been motivated to modify Glinz using the groove 90 of Hammond in the manner that the *two edges of the annular support surface* are offset in a direction of a center axis of rotation of the wheel so as not to be located in a position corresponding to the *circumferential groove 90* of Hammond when viewed from a radial direction of the wheel.

Instead, Hammond arguably teaches that a channel 90 can be radially located directly above the third bead core 37 (Hammond at Figure 2, column 12, lines 62-63). Hammond teaches that this tread bead core 37 alternatively can be made of any number of materials or cross-sectional shapes however the resultant bead core 37 must, when encapsulated in the rubber, exhibit a hoop strength sufficient to support several hundred pounds of dynamic load without collapsing (Hammond at column 9, lines 35-41). In this regard, however, when the tire is operated in the uninflated state the sidewall portions and the bead core 37 must support the entire load (Hammond at column 10, lines 23-25).

As a result, Glinz and Hammond, either individually or as a whole, fail to disclose, teach, or suggest all claimed features.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Dated: June 29, 2006

Respectfully submitted,

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